

Kwangmyong (network)

Kwangmyong (꺈, 'Bright Light'^{[1][2]}) is a North Korean "walled garden" national intranet service^[3] opened in the early 2000s. The Kwangmyong intranet system stands in contrast to the global Internet in North Korea, which is available to fewer people in the country.^[4]

The network uses domain names under the .kp top level domain that are not usually accessible from the global Internet.^[5] As of 2016 the network uses IPv4 addresses reserved for private networks in the 10.0.0.0/8 range.^[5] North Koreans often find it more convenient to access sites by their IP address rather than by URL, using Latin characters.^[5] Like the global Internet, the network hosts content accessible with web browsers, and provides an internal web search engine. It also provides email services and news groups.^{[6][7]} The intranet is managed by the Korea Computer Center.^[8]

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Kwangmyong



A computer room equipped with access to Kwangmyong at the Grand People's Study House in Pyongyang

Korean name	
Chosŏn'gŭl	광명
Hancha	光明
Revised Romanization	<i>gwangmyeonga</i>
McCune–Reischauer	<i>kwang-myŏng</i>
IPA	[kwaŋ.mjʌŋ]

History

The first website in North Korea, the Naenara web portal, was made in 1996.^[9] Efforts to establish the Kwangmyong network on a national scale began as early as 1997, with some development of intranet services in the Rajin-Sonbong Economic Special Zone as early as 1995. The intranet was originally developed by the "Central Scientific and Technological Information Agency".^{[10][11][12]} The national Kwangmyong intranet was first in service during the early 2000s.^{[11][13][14][15]} North Korea's first email provider was Sili Bank, established in 2001.^{[16][17][18]}

Prior to 2006, North Koreans would use intranet chat rooms to organize meetups to play sports, such as basketball. Following an incident where around 300 North Korean intranet users organized a flash mob at the Pyongyang Gymnasium, all chat rooms were removed from the North Korean intranet.^[9] Regional chat rooms reportedly made a return in 2015.^[19]

In 2013, Anonymous-affiliated hackers claimed to have broken into North Korea's intranet.^[20] However, evidence for the claim was lacking.^{[21][22][23]}

A video conferencing system called Rakwon was developed at Kim Il-sung University in 2010. During the COVID-19 pandemic, it became much more popular for remote meetings and appeared regularly on news bulletins. Telemedicine and remote education systems have been developed.^[24]

Content

As of 2014, the Kwangmyong network was estimated to have between about 1,000 and 5,500 websites.^{[13][25][7]} Max Fisher of Vox estimated the number was about 5,000.^[26]

The Kwangmyong network is composed of many websites and services. Some sites host political and economic propaganda. Scientific and cultural information and fields of knowledge among other topics can be found elsewhere.^{[10][17][27][28]} Over 30 million mostly scientific or technical documents were reportedly posted to the intranet as of 2007.^[8]

Websites of various North Korean government agencies including provincial government, cultural institutions, major universities and libraries, some local schools, and some of the major industrial and commercial organizations are accessible to users.^{[9][25]} The network also contains (mostly science-related) websites from the open Internet that are downloaded, reviewed and censored.^{[6][29]}

An internal emailing service is available on the Kwangmyong network.^{[9][16][30]} A search engine is in use for browsing the Kwangmyong intranet.^{[7][12][14][17]} The search engine reportedly goes by the name "Our Country", or "*Naenara*".^{[25][29][31]} A Facebook-like social networking service in use by professors and university students existed as of 2013, and was used to post birthday messages.^[32] CNN reported in 2017 that a "North Korean equivalent to Facebook" exists.^[33] Message boards are known to exist on the network.^{[29][34][26]} An IPTV video-streaming service called *Manbang* (만방, Korean for "Everyone", was reportedly launched in August 2016, though the name *Manbang* appeared in North Korean technology as early as 2013. It is accessed by a Wi-Fi-enabled set-top box. It can be accessed through smartphones and tablet computers.^{[16][35][36]} Reportedly the Kwangmyong has been used for online dating.^{[14][31][33]} Chat rooms were used by North Koreans interested in sports until 2006, when the chat rooms were removed.^[9] Regional chat rooms were added in 2015.^[19]

Domestic state news services are available on the network, such as the Korean Central News Agency, *Rodong Sinmun*, and Voice of Korea.^{[17][16][37]} Scientific research websites of academic and scholarly works devoted to the network are served through web-based academic exchanges and information sharing such as the Academy of Sciences for Science and Technology (Korean: 과학기술전시관; Hanja: 科學技術展示館)^[38] and the Academy of Sciences for Medical Science (Korean: 의학과학정보센터).^[39] An electronic library is present on the network, which also hosts video lectures for various topics.^{[9][40]}

Some [e-commerce](#) and [e-banking](#) websites exist on the network.^{[30][41][42][43]} Some video games also exist on the intranet.^{[9][14][18][31]} One of the games available on the Kwangmyong is [Korean chess](#).^{[17][25]} Phones provide access to [e-books](#) and [mobile payment](#).^{[44][45]} Some cultural websites are among the few .kp domain websites which have been openly accessible to foreigners through the global Internet, such as at least one [culinary](#) site and one displaying the country's film industry.^{[29][46]} Other services in use on the intranet include [dictionaries](#), [telehealth](#), and [text messaging](#) services.^[30] Reportedly a travel website allowed North Koreans to plan vacations within the country.^[47]

Network access

Kwangmyong is only designed to be accessible from within North Korea.^{[30][48][49]} Access is available within major cities and counties, as well as universities and major industrial and commercial organizations.^[35] For example, a library at the [Pyongyang Sci-Tech Complex](#) provides access to the intranet, and is reportedly used by different types of people, including factory workers, children and researchers for various purposes.^[30] The intranet is also accessible from another library at the [Grand People's Study House](#).^[31]

The first "internet café" (or "intranet cafe") in North Korea was opened in [Pyongyang](#), where one may access the country's intranet services. It opened in 2002, near [Kwangbok station](#), and has about 100 computers.^{[50][51][31]} It was opened by a [Seoul](#) company named Hoonnet, and a North Korean company named Jangsaeng General Trade Company.^{[8][52]} These cafes, also known as "PC rooms" or "Information Technology Stores", began appearing across North Korea as soon as the early 2000s, and can be accessed for a fee.^{[9][14][18]} The cafes provide other paid services as well, such as [computing](#) classes. As of 2005, the price for accessing these services was considered prohibitively expensive for the average North Korean citizen, according to *Daily NK*.^[53]

The process of installing an approved personal computer in North Korean homes which would be capable of accessing the intranet requires inspection and authorization from local government authorities.^{[9][19][54][55]} As of 2010, an estimated 200,000 such personal computers were in [Pyongyang](#) private homes, and access to the Kwangmyong is more common among people in cities compared to those in rural areas.^{[9][56]}

Kwangmyong has 24-hour unlimited access by [dial-up](#) telephone line.^[35] As of 2013, a number of [Android-based](#) [tablet computer](#) products, including the [Samjiyon tablet computer](#), can be purchased in North Korea that give access to Kwangmyong.^[57] A 2017 estimate put the amount of mobile phones in North Korea at between 2.5 and 3 million.^[30] In 2020, another estimate put the amount of mobile phone users at 4.5 million.^[58] In recent years, these have been the more common way for North Koreans to access websites on the Kwangmyong intranet. Access to the global Internet or phone numbers outside of North Korea is not permitted.^{[30][48][59][60]} Like personal computers, phones must be approved by authorities.^{[30][61]}

In 2018, North Korea unveiled a new Wi-Fi service called Mirae ("Future"), which allowed mobile devices to access the intranet network in [Pyongyang](#).^[62]

Languages

The network uses [Korean](#) as the main interface language, though the government's web portal (*Naenara*), is multilingual.^{[49][63]} There is a dictionary available to users for translation between Korean and [Russian](#), [Chinese](#), [English](#), [French](#), [German](#) and [Japanese](#), with a database containing at least 1,700,000 words, to assist users who may not be familiar with foreign languages.^[64]

Different websites on the intranet may be available in different sets of languages. A website that sells postage stamps is available in Korean, English, and Chinese.^[15] The writings of the [Kim family](#) are available in Korean, Japanese, Russian, and Chinese.^[17]

Information control

Kwangmyong is designed only to be used within North Korea, and is referred to as an "intranet".^[49] Kwangmyong prevents domestic users within North Korea from freely accessing foreign content or information and typically prevents foreigners from accessing domestic content.^{[16][42]} According to *Daily NK*, it "prevents the leak of classified data" and "functions as a form of information censorship, preventing undesirable information from being accessed".^[65] Thus, sensitive topics and information are unlikely to surface on Kwangmyong due to the absence of a link to the outside world and the censorship that occurs. Kwangmyong is maintained and monitored by government-related entities.^[66] However, large amounts of material from the global Internet ends up on Kwangmyong, following processing.^{[29][54]} The operating systems of government-approved phones reject access to any applications that are not also approved by the government.^[30]

While foreigners in North Korea are generally not allowed to access Kwangmyong, they may have access to the global Internet.^{[16][42][43][66][67]} For security reasons networks with Internet and intranet access are [air gapped](#) so that computers with Internet access are not housed in the same location as computers with Kwangmyong access.^[6]

Given that there is no direct connection to the outside Internet, unwanted information cannot enter the network. Information is filtered and processed by government agencies before being hosted on the North Korean Intranet.^[68] [Myanmar](#) and [Cuba](#) also use a similar network system that is separated from the rest of the Internet, and [Iran](#) has been reported as having future plans to implement such a network, though it is claimed that it would work alongside the [Internet](#) and would not replace it.^{[69][70][71]}

List of sites

This is a list of sites that were listed on Kwangmyong's website portal in 2016.^[5]

Category	Field	Site name	Site URL address	Site IP address	Has site on internet?
종합자료기지 (Comprehensive database)		과학기술전당 <u>Science and Technology Complex</u>	www.sciteco.aca.kp	10.93.0.3	No
		남산 (인민대학습당) <u>Namsan (Grand People's Study House)</u>	www.gpsh.edu.kp	10.30.80.101	www.gpsh.edu.kp (http://www.gpsh.edu.kp/)
		광명 (중앙과학기술통보사) <u>Bright Light (Central Information Agency for Science and Technology)</u>	www.ciastr.aca.kp	10.41.1.2	No
		열풍 (중앙과학기술보급부) <u>Craze (Central Science and Technology Distribution Center)</u>	www.stdc.gov.kp	10.30.71.67	No
부문별중앙자료기지 (Central database by field)	교육 Education	교육 (김일성종합대학) <u>Education (Kim Il Sung University)</u>	www.mns.edu.kp	10.42.1.5	www.ryongnamsan.edu.kp (http://www.ryongnamsan.edu.kp/)
	의학 Medicine	무병 (김일성종합대학 평양의학대학) <u>Disease Free (Pyongyang Medical College of Kim Il Sung University)</u>	www.mubyong.inf.kp	10.30.5.222	No
	공학 Technology	미래 (김책공업종합대학) <u>Future (Kim Chaek University of Technology)</u>	www.elib.ac.kp	10.30.50.5	www.kut.edu.kp (http://www.kut.edu.kp/)
	건축 Architecture	평양건축종합대학 Pyongyang University of Architecture	www.pua.edu.kp	10.61.4.2	No
	건설, 설계 Construction, design	5.21 (국가설계지도국) <u>5.21 (Construction Design Information Center)</u>	www.cdic.con.kp	10.10.5.99	No
	발명, 특허 Invention, patent	발명 (국가발명국) <u>Invention (State Invention Office)</u>	www.ipo.aca.kp	10.41.50.9	No
	상표, 공업도안 Brand, industrial design	척후대 (중앙산업미술지도국) <u>Scout (Central Industrial Art Center)</u>	www.tidgio.gov.kp	10.40.11.130	No
	규격 Standards	래일 (국가국격체정연구소) <u>Tomorrow (Korean National Institute of Standards)</u>	www.knis.ipo.aca.kp	10.66.1.3	No

	체육 Athletics	우승 (체육과학원) Winner (Institute of Sports Science)	www.ssl.edu.kp	10.70.5.52	No
	산림 Forestry	황금산 (국토환경보호성 중앙 양묘장) Golden Mountain (Central Tree Nursery, Ministry of Land and Environment Conservation)	hwanggumsan.edu.kp	10.192.3.2	No
	나노기술 Nanotechnology	나노기술 (국가나노기술국) Nanotechnology (National Nanotechnology Center)	www.nano.aca.kp	10.10.6.18	No
각도 도서관 Provincial libraries		불야경 (자강도도서관) Night View (Jagang Province Library)	www.fire.edu.kp	10.214.6.18	No
		분발 (함경북도도서관) Endeavor (North Hamgyong Province Library)	www.hambuk.edu.kp	10.205.10.100	No
		려명 (함경남도도서관) Dawn (South Hamgyong Province Library)	www.shplib.edu.kp	10.209.223.201	No
		철령 (강원도도서관) Choryong (Kangwon Province Library)	www.kwlib.edu.kp	10.217.4.10	No
		평안북도도서관 North Phyongan Province Library	www.pplib.edu.kp	10.217.1.10	No
		례성강 (황해북도도서관) Ryesonggang (North Hwanghae Library)	www.rsr.edu.kp	10.226.9.80	No
		황해남도도서관 South Hwanghae Library	www.shlib.edu.kp	10.229.0.35	No
		라선시도서관 Rason City Library	www.rslib.edu.kp	10.238.5.2	No
		와우도 (남포시도서관) Snail (Nampho City Library)	www.wud.edu.kp	10.232.101.2	No
원격교육기지 (Tele-education database)		룡남산 (김일성종합대학) Ryongnamsan (Kim Il Sung University)	N/A (not same website as 《교육 (김일성종합대학)》)	10.42.1.250	www.ryongnamsan.edu.kp (http://www.ryongnamsan.edu.kp/)
		원종장 (김일성종합대학 평양 의학대학) www.wonjongjang.edu.kp	10.30.5.133	No	

	Wonjongjiang (Pyongyang Medical College of Kim Il Sung University)			
	리상 (김책공업종합대학) Ultimate Goal (Kim Chaek University of Technology)	www.risang.edu.kp	10.15.15.8	www.kut.edu.kp (http://www.kut.edu.kp/)
	모체 (평양기계종합대학) Moche (Pyongyang University of Mechanical Engineering)	www.mochu.edu.kp	10.60.2.30	No
	선행관 (평양철도종합대학) Sonhaenggwan (Pyongyang University of Railways)	www.sgh.edu.kp	10.192.131.100	No
	충북 (장철구평양공업종합대 학) Loyalty (Pyongyang Jang Chol Gu University of Commerce)	www.chungbok.edu.kp	10.40.4.130	No
	인재 (한덕수평양경공업종합 대학) Talent (Pyongyang Han Tok Su University of Light Industry)	www.iniea.edu.kp	10.20.66.3	No
	정준택원산경제대학 Wonsan Jong Jun Thaek University of Economics	www.wieu.edu.kp	10.224.21.10	No
기타 Miscellaneous	김일성종합대학 Kim Il Sung University	www.ms.edu.kp	10.42.1.2	www.ryongnamsan.edu.kp (http://www.ryongnamsan.edu.kp/)
	불멸의 꽃 (조선김일성화김정 일화위원회) Immortal Flower (Korea Kimilsungia- Kimjongilia Committee)	www.kfa.org.kp	10.66.5.11	www.naenara.com.kp/sites/kkf/ (http://www.naenara.com.kp/sites/kkf/)
	클락새 (김일성종합대학 정보 기술연구소) Kulaksae (Kim Il Sung University Information Technology Center)	www.kulak.edu.kp	10.50.25.3	No
	검은모루 (황해북도 상원군도 서관) Black Anvil (North Hwanghae Province Sangwon County Library)	www.kmm.edu.kp	10.188.1.1	No
	고려의술 (고려의학과학원)	www.koryodoctor.inf.kp	10.76.1.18	No

	Koryo Medicine (Academy of Koryo Medicine)			
	기둥 (청진광산금속대학) Pillar (Chongjin University of Mining and Metallurgical Engineering)	www.cimmu.edu.kp	10.205.1.5	No
	길동무 (함경북도과학기술보소) Companion (North Hamgyong Province Information Agency for Science and Technology)	www.hbiast.aca.kp	10.205.7.10	No
	과학 (국가과학원) Science (State Academy of Sciences)	www.sas.aca.kp	10.193.1.5	No
	과학기술전자전시관 (과학기술전시관) Science and Technology Exhibition House	www.stic.aca.kp	192.168.10.10	No
	광야 (인터넷중앙연구소) Open Field (Central Internet Institute)	www.cii.gov.kp	10.50.21.3	No
	로동신문 (로동신문사) Rodong Sinmun	www.rodong.ref.kp	10.10.3.100	www.rodong.rep.kp (http://www.rodong.rep.kp/)
	룡강군도서관 (남포시 룡강군 도서관) Ryonggang County Library (Nampo City Ryonggang County Library)	www.rg.edu.kp	10.160.1.2	No
	류경오락장 (인공지능연구소) Ryugyong Recreation Area (Artificial Intelligence Research Institute)	www.ryugyong.inf.kp	10.70.7.133	No
	만방 (조선중앙방송위원회) Manbang (Central Broadcasting Committee of Korea)	www.krt.rep.kp	10.61.61.3	No
	만병초 (장철구평양상업대학 도서관) Manbyongcho (Pyongyang Jang Chol Gu University of Commerce Library)	www.manbyongcho.edu.kp	10.40.4.131	No
	목란 (목란광명회사)	www.mokran.com.kp	10.30.0.85	No

	Mokran (Mokran Kwangmyong Company)			
	방역 (국가발명국) Quarantine (State Invention Office)	www.antivir.ipo.aca.kp	10.41.50.3	No
	법무생활 (최고인민회의 상임 위원회) Legal Life (Presidium of the Supreme People's Assembly)	www.gpa.gov.kp	10.30.16.18	No
	불길 (평양석탄공업대학) Flame (Phyongsong University of Coal Mining)	www.pulgil.edu.kp	10.220.6.2	No
	붉은별 (붉은별연구소) Red Star (Red Star Research Institute)	www.osandok.inf.kp	10.70.7.132	No
	비약 (3대혁명전시관) Jump (Three-Revolution Exhibition House)	www.exb.edu.kp	10.50.19.1	No
	백두산 (백두산건축연구원) Paektusan (Paektusan Institute of Architecture)	www.paekdusan.com.kp	10.30.3.34	No
	상연 (상업과학연구소) Performance (Institute of Commercial Science)	www.sangyon.aca.kp	10.30.30.30	No
	선구자 (함경남도과학기술릉 보소) Pioneer (South Hamgyong Province Information Agency for Science and Technology)	www.hnst.aca.kp	10.209.225.2	No
	신고 (인민보안부) Report (Ministry of People's Security)	www.singo.law.kp	10.250.2.100	No
	신기 (계명기술개발소) Mystical Energy (Kyemyong Technology Development Company)	www.singi.com.kp	10.30.80.131	No
	실리 (평양광명정보기술사) Profit (Pyongyang Kwangmyong IT Corporation)	N/A	10.10.1.15	No
	실리웍핀 (평양광명정보기술)	www.sv.com.kp	10.10.1.16	No

	사) Profit Antivirus (Pyongyang Kwangmyong IT Corporation)			
	새별기술교류사 (새별기술교 류사) Saebyol Technology Exchange Company	www.saybyol.com.kp	10.76.1.50	No
	새세기 (중앙과학기술통보사) New Century (Central Information Agency for Science and Technology)	www.newcentury.aca.kp	10.41.1.10	No
	생명 (의학과학정보기술사) Life (Medical Science and Technology Corporation)	www.icms.hea.kp	10.65.3.2	No
	장자강 (자강도전자업무연구 소) Jangjagang (Jagang Province Electronic Business Research Institute)	www.ikic.inf.kp	10.214.1.51	No
	전만봉 (희천공업대학) Jonmanbong (Huichon University of Telecommunications)	www.hut.edu.kp	10.126.0.10	No
	정보21 (평양정보기술국) Data 21 (Pyongyang Information Technology Bureau)	www.pic.com.kp	10.21.1.22	No
	조선료리 (조선료리협회) Korean Cuisine (Korea Cooking Association)	www.cooks.org.kp	10.10.6.40	www.cooks.org.kp (http://www.cooks.org.kp/)
	조선중앙통신 (조선중앙통신 사) Korean Central News Agency	www.kcn.inf.kp	10.22.1.50	www.kcna.kp (http://www.kcna.kp/)
	중앙버섯연구소 (국가과학원 중앙버섯연구소) Central Mushroom Research Institute (State Academy of Sciences Central Mushroom Research Institute)	www.mushroom.aca.kp	10.20.7.2	No
	지향 (함흥화학공업대학) Aim (Hamhung University of Chemical Engineering)	www.huct.edu.kp	10.208.1.2	No

	진달래 (만경대정보기술사) Jindallae (Mangyongdae IT Corporation)	www.mit.com.kp	10.76.12.2	No
	창성군도서관 (평안북도 창성 군도서관) Changsong County Library (North Phyongan Province Changsong County Library)	www.cslib.edu.kp	10.145.2.2	No
	창전 (대동강건재공장) Changjon (Taedonggang Building Materials Factory)	www.changjon.com.kp	10.90.6.100	No
	천리마 (중앙정보통신국) Chollima (Central Information and Communications Center)	www.pt.net.kp	172.16.11.23	No
	천리마타일공장 (천리마타일 공장) Chollima Tile Factory	www.taedonggangtile.com.kp	10.159.127.15	No
	철벽 (정보보안연구소) Iron Wall (Information Security Research Center)	www.oun.inf.kp	10.76.1.25	No
	체콤기술합영회사 (체콤기술 합영회사) Checom Technology Joint Venture Company	www.checom.net.kp	10.40.5.4	No
	평북 (평안북도전자업무연구 소) Phyongbuk (North Phyongan Province Electronic Business Research Institute)	www.pyongbuk.inf.kp	10.217.12.2	No
	평양성 (평양정보기술국) Pyongyangsong (Pyongyang Information Technology Bureau)	www.ca.pic.co.kp	10.21.1.53	No
	평양택견 (태권도성지관) Pyongyang Taekkyon (Taekwondo Sanctuary)	www.taekwon-do.edu.kp	10.70.7.18	No
	포부 (평북종합대학 농업대학) Aspiration (Agricultural College of Phyongbuk University)	www.phobu.edu.kp	10.217.7.50	No

	푸른주단 (국가과학원 잔디연구분원) Blue Silk (State Academy of Sciences Turf Branch Institute)	www.iandi.aca.kp	10.72.1.2	No
	품질 (국가품질감독위원회) Quality (State Commission of Quality Management)	www.saqm.gov.kp	10.80.2.40	No
	학무정 (자강도 전천군도서관) Hakmujong (Jagang Province Jonchon County Library)	www.hmj.edu.kp	10.127.131.5	No
	울림 (평양정보기술국) Echo (Pyongyang Information Technology Bureau)	N/A	10.30.18.30	No
	해당화관 (해당화교류사) Haedanghwakwan (Haedanghwa Exchange Company)	www.hdh.com.kp	10.76.1.3	No
	해양 (북해운선) Ocean (Ministry of Land and Maritime Transport)	www.mlmt.raikp	10.30.33.2	www.ma.gov.kp (http://www.ma.gov.kp)
	아리랑 (5월11일공장) Arirang (May 11 Factory)	www.arirang.com.kp	10.30.71.91	No
	아침 (조선과학기술총련맹 중앙위원회) Morning (Central Committee of the General Federation of Science and Technology of Korea)	www.kwust.org.kp	10.30.5.3	No
	옥류 (인민봉사총국) Okryu (People's General Service Bureau)	N/A	10.10.1.14	No
	우주 (위성정보봉사지점) Space (Satellite Information Service Branch)	www.space.aca.kp	10.50.5.5	No
	원산농업종합대학 Wonsan University of Agriculture	N/A	10.224.121.100	No

This is a list of sites that are not directly listed on www.sciteco.aca.kp (Kwangmyong website portal) in 2016 and sites that have been confirmed to be created on Kwangmyong past 2016.

Site name	Site URL address	Site IP address

See also

- Internet in North Korea
- Internet censorship in North Korea
- Red Star OS

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External links

- List of sites on Kwangmyong (<http://www.northkoreatech.org/2015/07/06/a-peek-inside-north-koreas-intranet/>) at North Korea Tech
- Video of surfing on Kwangmyong (<http://areena.yle.fi/1-3462510>) at Yle Areena
- North Korea and the Internet (http://www.economist.com/world/asia/displaystory.cfm?story_id=8640881) at *The Economist*
- Kwangmyong computer network (<http://www.nkeconwatch.com/category/dprk-organizations/companies/korea-computer-center-kcc/kwangmyong-computer-network/>) at North Korea Economy Watch
- Digital Divide on the Korean Peninsula (<http://www.icasinc.org/2002/2002I/2002Itxb.html>) at Institute for Corean-American Studies
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